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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,611	11/09/2001	Hiroshi Kinoshita	FUJA 19.149	2524
26304	7590	10/07/2005		
KATTEN MUCHIN ROSENMAN LLP 575 MADISON AVENUE NEW YORK, NY 10022-2585			EXAMINER GREY, CHRISTOPHER P	
			ART UNIT 2667	PAPER NUMBER
DATE MAILED: 10/07/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,611

Applicant(s)

KINOSHITA ET AL.

Examiner

Christopher P. Grey

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1- 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (US 2001/0032271) in view of Galand et al. (US 2004/0042402), hereinafter referred to as Galand.

Claim 1, 9, 14, 22 Allen discloses setting up a working path from a start- point node to an end-point node and setting up a protection path, where any of the transit nodes may act as an originating node (paragraph 0022).

Allen does not specifically disclose setting up a plurality of protection paths by taking a plurality of nodes on said working path as respective start points at the time of setting up said working path.

Galand discloses setting up a plurality of protection paths by taking a plurality of nodes on said working path as respective start points at the time of setting up said working path (paragraph 0052 and 0197 and 0200 and 0210 and 0260).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify each node, including source, destination and transit nodes as disclosed by Allen, to precompute an alternate path as disclosed by Garland (paragraph

0200). The motivation for this modification is to reroute user traffic to an alternate path in the case of a failure, without a disruption.

Claim 2, 10, 15, 23 Allen discloses transferring a working path setup request message containing therein a protection path request from a start point to an end point of said working path along a route of said working path being set up; and setting up said working path by transferring a working path setup response message from the end point to the start point of said working path in response to said working path setup request message (paragraphs 0026 and 0027), and

Allen also discloses including the substeps of: transferring a protection path setup request message from a start point to an end point of each of said plurality of protection paths in response to said protection path request contained in said working path setup request message; and setting up each of said plurality of protection paths by transferring a protection path setup response message from the end point to the start point of said each protection path in response to said protection path setup request message (paragraph 0038 and 0042).

Claim 3, 11, 16 Allen discloses a protection path setup request message is sent out from each node after said each node has received said working path setup response message (paragraph 0038, 0039). Allen discloses each transit node being capable of functioning as an origin node (paragraph 0022).

Claim 4, 17, 24 Allen discloses sending a result notification from end-point node of said working path to an upstream adjacent node along said working path (paragraph 0027 and 0042); and notifying the completion of said protection path setup to said start-

Art Unit: 2667

point node of said working path, by each node on said working path sequentially passing said result notification on to an upstream adjacent node along said working path after receiving both said result notification and said protection path setup response message for the protection path set up with said each node as the start point (paragraph 0028 and 0022).

Claim 5, 12, 18 Allen does not specifically disclose including the substep of determining whether a portion of a protection path about to be set up can share a bandwidth with some other protection path.

Garland discloses determining whether a portion of a protection path about to be set up can share a bandwidth with some other protection path (paragraph 0158 and 0175 and 0177 and 0171 and 0161-0166).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify each node as disclosed by Allen to contain route controllers (paragraph 0099) as disclosed by Garland, so as to maintain connection parameters and monitor the bandwidth of the connections in order to make a path selection. The motivation for this modification is to satisfy a required Qos (BW requirement) as disclosed in paragraph 0094.

Claim 6, 19 Allen does not specifically disclose estimating a delay along a route from the start point to the end point of said working path, including the protection path about to be set up, at the end-point node of said protection path.

Garland discloses estimating a delay along a route from the start point to the end point of said working path, including the protection path about to be set up, at the end-

point node of said protection path, where Garland maintains link propagation delay for each link (paragraphs 0127 and 0181 and 0177).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify each node as disclosed by Allen to contain a route controller for maintaining a propagation delay. The motivation for this modification is to use this information to calculate an optimum path (paragraph 0094) and to satisfy a Qos requirement (paragraph 0177).

Claim 7, 20, 25 Allen discloses appending at each node an identifier of said each node to said working path setup response message, thereby making it possible to set up a protection path across an area border (paragraph 0026 and 0028).

Claim 8, 13, 21, 26 Allen does not disclose releasing said plurality of protection paths that have been set up and releasing said working path that has been set up.

Garland discloses releasing said plurality of protection paths that have been set up and releasing said working path that has been set up, wherein Garland discloses periodically updating alternate paths (paragraph 0201 and 0038).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the nodes as disclosed by Allen to follow the procedure of the path switching as disclosed by Garland, where a path is released in the event of a failure, and an alternate path is triggered. The motivation for this modification is to allow for quick and efficient fault recovery.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a) Su et al (US 6850705) discloses a method for selecting failure protection paths in a network.

(b) Jain (US 20020133756) discloses a system for providing multiple levels of fault protection in a data communications network.

Art Unit: 2667

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher P. Grey whose telephone number is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher Grey
Examiner
Art Unit 2667

C. Grey
9/28/05

Chi Pham

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9/29/05